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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,951	10/06/2006	Osamu Niwa	SAEG124.004APC	1688

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EXAMINER

KAHN, RACHEL

ART UNIT	PAPER NUMBER
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4131

NOTIFICATION DATE	DELIVERY MODE
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12/15/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/560,951	Applicant(s) NIWA ET AL.	
	Examiner RACHEL KAHN	Art Unit 4131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-30 is/are rejected.
- 7) ☒ Claim(s) 9, 15-20 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/9/2006, 3/15/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 8/9/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Specifically, a copy of reference 3 (British Examination Report on GB0525785.2) was not received.

Claim Objections

Claim 27 is objected to because of the following informalities: Part (ii) of claim 27, "an alcohol-based compound which contains alcoholic OH group," is redundant and grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 9, 11 and 15-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites that the multilayer film be "highly suitable for boiling and water treatment and retort treatment," but fails to give

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criteria with which to assess whether that limitation has been met. Claim 27, for example, contains a similar limitation, but clearly recites such criteria.

Claim 11 depends upon claim 10, further comprising an aromatic polyamide layer. It is unclear whether applicants intended one of the 2 polyamide layers in claim 10 to be aromatic, or whether the laminate of claim 11 must comprise at least 4 layers, one of which is an aromatic polyamide layer.

Claims 9 and 15-20 recite a multilayer film **consisting of at least one** EVOH layer and **at least one** polyamide layer. The transitional phrase "consisting of" in claims 9 and 15-20 excludes any element not specified in the claim. However, because the transitional phrase "consisting of" is followed by the phrase "at least one," it is unclear what is excluded from the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 9, 10, 13-17, 21-23, 27, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (JP 11-199741) in view of Shibuya et al (JP 06-345919).

Regarding instant claims 1, 4, 10, 16 and 22, Yamamoto discloses a composition which has excellent retort resistance prepared by mixing a polyamide resin with an

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alcoholic compound and then adding saponified ethylene vinyl acetate (herein EVOH) to the mixture (English patent abstract and [0004] of machine translation). Yamamoto teaches that this composition may be formed into a film or sheet [0011] and that other materials may be layered on one or both sides [0012]. Yamamoto discloses polyamide as a suitable material for layering on either side of the inventive resin [0013]. If instant claim 1 is not considered anticipated due to the long list of suitable materials other than polyamide for the additional layer, it would have been obvious to one of ordinary skill in the art to choose polyamide in view of Shibuya.

Shibuya discloses a laminate composition comprising an inner layer of EVOH blended with polyamide and outer layers of polyamide resin (English patent abstract). Shibuya teaches that this multilayered laminate is useful as packaging for materials subject to retort or boil sterilization [0002, 0042, 0058]. It would have been obvious, therefore, to choose polyamide for the outer layer from the list of suitable polymers taught by Yamamoto, given the teaching by Shibuya that polyamide outer layers are ideal in a laminate used in boiling and sterilization conditions.

Regarding claims 3, 15 and 21, Yamamoto teaches the addition of silica to the EVOH resin system [0011].

Regarding claims 5, 13, 17 and 23, Yamamoto teaches an aliphatic nylon (English abstract) as well as EVOH with less than 60% ethylene content and greater than 90% saponification [0007].

Regarding claims 9 and 15-17, which contain the excluding transitional phrase “consisting of,” Shibuya teaches multilayer laminates which do not require any other layers besides the disclosed EVOH and polyamide layers [0016].

Regarding claim 27, Yamamoto teaches that the composition has excellent transparency and retorting resistance (English abstract), as well as the use of nylon 6 for the polyamide resin in the EVOH layer [0005]. Shibuya also teaches that there was no change in transparency in the three-layer laminate after 30 minutes in 95 °C water or 121 °C steam [0058 and 59].

Regarding claim 28, Yamamoto discloses the claimed ratios exactly (English patent abstract).

Regarding claims 29 and 30, Yamamoto discloses coextrusion [0012] as well as stretching by “two axes” (i.e. biaxial stretching) [0011]. Shibuya also discloses coextrusion of the EVOH-polyamide blend layer between two polyamide outer layers [0016] using a “2-axis extrusion machine.” [0052].

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (JP 11-199741) in view of Shibuya et al (JP 06-345919) as applied to claims 1 and 10 above, and further in view of Tanaka et al (JP 2002-172742).

Yamamoto and Shibuya both teach polyamide as an outer layer, however, both fail to specifically teach the use of an aromatic polyamide layer.

Tanaka teaches a biaxially stretched three layer laminate with an EVOH layer, an aliphatic polyamide layer and a xylylene (ie aromatic) polyamide containing layer

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(English patent abstract). Tanaka teaches that the laminates have excellent transparency and are highly suitable for packaging food. Tanaka teaches that the use of an aromatic polyamide layer improves the smell retaining property of the laminate [0012]. Given that the intended use of the laminates disclosed by both Yamamoto and Shibuya are for food packaging, it would have been obvious to one of ordinary skill in the art to use the aromatic polyamide layer taught by Tanaka in the compositions taught by Yamamoto and Shibuya.

Claims 6-8, 12, 18-20 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (JP 11-199741) in view of Shibuya et al (JP 06-345919) as applied to claims 1, 4, 9, 10 and 29 above, and further in view of Matsui et al (JP 2002-248721).

Shibuya discloses the use of a hindered phenolic antioxidant, including pentaerythrityl-tetrakis[3-3,5-di-t-butyl-4-hydroxyphenyl]propionate [0033]. However, Shibuya teaches the addition of the antioxidant to the EVOH-Polyamide blend layer, but fails to teach adding the antioxidant to the outer polyamide layers. Shibuya teaches that the use of the antioxidant prevents gel formation. It could be considered obvious, on the basis of Shibuya alone, to add the hindered phenolic antioxidant to each layer, as each layer will be subject to the same high heat conditions during sterilization.

However, if not considered obvious over Shibuya alone, Matsui teaches a layered film containing a polyamide layer suitable for packing material subject to retort treatment [0001]. Matsui teaches that the polyamide film has excellent transparency

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and heat resistance [0002]. Matsui discloses the addition of an antioxidant to the polyamide and suggests the use of pentaerythrityl-tetrakis[3-3,5-di-t-butyl-4-hydroxyphenyl]propionate [0020]. It would have been obvious to one of ordinary skill in the art to add the antioxidant to the polyamide layers in the laminates taught by Yamamoto and Shibuya, given the teaching by Matsui that the antioxidant minimizes strength reduction of the polyamide film following retort treatment [0019].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RACHEL KAHN whose telephone number is (571)270-7346. The examiner can normally be reached on Monday to Friday 8:00 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RACHEL KAHN/
Examiner, Art Unit 4131

/David R. Sample/
Supervisory Patent Examiner
Art Unit 4131

RK